Industrial Technologies Program

Boosting Energy Efficiency and Productivity

Collaborative Partnerships Invest in Major Energy-Saving Advances

Through greater energy efficiency, U.S. industry can increase productivity and competitiveness while improving our national energy security, environmental quality, and economic health. The Industrial Technologies Program employs "Industry of the Future" partnerships to increase the efficiency of industrial energy use, both now and in the future. Emphasis is on technologies and practices that can boost the productivity and profits of our most energy-intensive industries—industries that supply more than 90 percent of the materials in the finished products that we use every day.

The Program partners with industry through a competitive solicitation process, providing financial assistance to selected research, development, and demonstration (RD&D) projects that can dramatically accelerate the pace of technology innovation. These partnerships bring the expertise of private companies, national laboratories, and universities to bear on solving critical technological challenges. Partners typically provide 50 percent of total project costs over the life of a project.

RD&D Crosscutting Benefits for Many Industries

To date, the Industrial Technologies Program portfolio has contributed to nearly 2 quadrillion Btus in industrial energy savings valued at over $8 billion. A particular focus of the Program is cross-cutting technologies—in such critical areas as combustion, sensors and controls, advanced materials, and industrial energy systems—that can benefit multiple industries.

As one example, researchers at Oak Ridge National Laboratory and their industrial partners received cost-shared support to develop an array of intermetallic alloys. These novel materials, which resist corrosion and fatigue in harsh, high-temperature environments, address critical needs in the steel, metal casting, forest products, and chemical industries.

Accelerating Innovation

The mission of the Industrial Technologies Program is to improve the energy intensity of U.S. industry through coordinated research and development, validation, and dissemination of innovative energy efficiency technologies and practices. The Industrial Technologies Program partners with industry and other stakeholders to:

- *Reduce reliance on foreign oil*
- *Reduce environmental impacts*
- *Increase use of renewable energy*
- *Improve competitiveness*
- *Improve process yield*
- *Conserve resources.*

Saving Energy Today and Tomorrow

To move energy efficiency technologies and practices into use on plant floors, the Program provides a variety of resources for industrial energy management, including an extensive publications library. It also fosters efforts to replicate energy savings across companies and entire industries.

Immediate returns from energy efficiency improvements can be significant. For example, a $200,000 energy assessment '50/50' cost-shared by DOE and Alcoa, of the firm's plant in Lafayette, Indiana, identified nearly $2 million in annual savings opportunities. The company is now using the tools and training received with that assessment to assess ten more plants within the next year.

Among the resources provided by the Program are:

- **Software systems tools and training**, enabling plants to self-assess their steam, compressed air, motor, and process heating systems.
- **Cost-shared funding for independent plant-wide assessments**, provided through a competitive solicitation process, to identify savings opportunities.
- **No-cost targeted assessments** provided to eligible facilities by teams of engineering faculty and students from 26 university-based Industrial Assessment Centers around the country.

The Program also collaborates with others in the Office of Energy Efficiency and Renewable Energy (EERE) to help transfer technologies and energy management practices to industry. EERE Allied Partners—including end users, suppliers, associations, and other organizations—help deliver EERE tools, training, and information to industrial customers. EERE State Partnerships enhance industry access to R&D in a wide range of technologies, and provide a conduit for a two-way flow of information on needs, information and tools, showcases, and opportunities for networking to build new alliances.

In addition, the Program co-sponsors EERE Technology Showcases, public events that highlight the benefits of energy efficiency and renewable energy technologies and practices. Showcases may include plant tours featuring advanced technology demonstrations, results of plant-wide energy assessments, and presentations on emerging technologies and practices.

A Strong Energy Portfolio for a Strong America

Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

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